CLAIMS

What is claimed is:

1. A method, comprising:

scanning an address space to locate a structure;

determining the starting address location of the structure; and

accessing a register located within the structure by adding a predetermined offset to the starting address location of the structure.

2. The method of claim 1, wherein scanning an address space includes scanning a PCI address space.

3. The method of claim 1, wherein scanning an address space includes scanning a PCI Express address space.

4. The method of claim 1, wherein scanning an address space to locate a structure includes scanning an address space to locate a structure that is located within a configuration space of a device.

5. The method of claim 2, wherein scanning an address space to locate a structure includes reading an 8-bit PCI capabilities pointer located inside a target device.

6. The method of claim 5, wherein scanning an address space to locate a structure further includes determining whether the 8-bit capabilities pointer is a valid capabilities pointer.

7. The method of claim 6, wherein scanning an address space to locate a structure further includes following the 8-bit capabilities pointer to read an 8-bit capabilities identification value.

8. The method of claim 7, wherein scanning an address space to locate a structure further includes determining whether the read capabilities identification value matches a predetermined capabilities identification value.

9. The method of claim 8, wherein scanning an address space to locate a structure further includes reading a next 8-bit capabilities pointer if the read capabilities identification value does not match the predetermined capabilities identification value.

10. The method of claim 9, wherein determining the starting address location of the structure includes returning a pointer to the structure if the read capabilities identification value matches the predetermined capabilities identification value.

11. The method of claim 3, wherein scanning an address space to locate a structure includes reading a 12-bit PCI Express capabilities pointer located inside a target device.

12. The method of claim 11, wherein scanning an address space to locate a structure further includes determining whether the 12-bit capabilities pointer is a valid capabilities pointer.

13. The method of claim 12, wherein scanning an address space to locate a structure further includes following the 12-bit capabilities pointer to read a 16-bit capabilities identification value.

14. The method of claim 13, wherein scanning an address space to locate a structure further includes determining whether the read capabilities identification value matches a predetermined capabilities identification value.

15. The method of claim 14, wherein scanning an address space to locate a structure further includes reading a next 12-bit capabilities pointer if the read capabilities identification value does not match the predetermined capabilities identification value.

16. The method of claim 15, wherein determining the starting address location of the structure includes returning a pointer to the structure if the read capabilities identification value matches the predetermined capabilities identification value.

17. A machine-readable medium having stored thereon instructions which, when executed by a computer system, causes the computer system to perform a method comprising:

scanning an address space to locate a structure;

determining the starting address location of the structure; and

accessing a register located within the structure by adding a predetermined offset to the starting address location of the structure.

18. The machine-readable medium of claim 17, wherein scanning an address space includes scanning a PCI address space.

19. The machine-readable medium of claim 17, wherein scanning an address space includes scanning a PCI Express address space.

20. The machine-readable medium of claim 17, wherein scanning an address space to locate a structure includes scanning an address space to locate a structure that is located within a configuration space of a device.

21. The machine-readable medium of claim 18, wherein scanning an address space to locate a structure includes reading an 8-bit PCI capabilities pointer located inside a target device.

22. The machine-readable medium of claim 21, wherein scanning an address space to locate a structure further includes determining whether the 8-bit capabilities pointer is a valid capabilities pointer.

23. The machine-readable medium of claim 22, wherein scanning an address space to locate a structure further includes following the 8-bit capabilities pointer to read an 8-bit capabilities identification value.

24. The machine-readable medium of claim 23, wherein scanning an address space to locate a structure further includes determining whether the read capabilities identification value matches a predetermined capabilities identification value.

25. The machine-readable medium of claim 24, wherein scanning an address space to locate a structure further includes reading a next 8-bit capabilities pointer if the read capabilities identification value does not match the predetermined capabilities identification value.

26. The machine-readable medium of claim 25, wherein determining the starting address location of the structure includes returning a pointer to the structure if the read capabilities identification value matches the predetermined capabilities identification value.

27. The machine-readable medium of claim 19, wherein scanning an address space to locate a structure includes reading a 12-bit PCI Express capabilities pointer located inside a target device.

28. The machine-readable medium of claim 27, wherein scanning an address space to locate a structure further includes determining whether the 12-bit capabilities pointer is a valid capabilities pointer.

29. The machine-readable medium of claim 28, wherein scanning an address space to locate a structure further includes following the 12-bit capabilities pointer to read a 16-bit capabilities identification value.

30. The machine-readable medium of claim 29, wherein scanning an address space to locate a structure further includes determining whether the read capabilities identification value matches a predetermined capabilities identification value.

31. The machine-readable medium of claim 30, wherein scanning an address space to locate a structure further includes reading a next 12-bit capabilities pointer if the read capabilities identification value does not match the predetermined capabilities identification value.

32. The machine-readable medium of claim 31, wherein determining the starting address location of the structure includes returning a pointer to the structure if the read

capabilities identification value matches the predetermined capabilities identification value.